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AUTHOR MacKinnon, Gregory R.; Tumblin, Elizabeth
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ABSTRACT

This paper categorizes the learning communities that have emerged as educators extend the capabilities of the Internet beyond simple search capacities. An example of a teacher education project entitled "Mystery Web" is introduced as a model for building intern and student relationships as well as a variety of generic educational skills. Each teacher education student selected a personality of importance in Canadian culture and created a World Wide Web page that posed ten clues as to the identity of the famous personality. Public school students' tried to identify the personalities; objectives included promoting an awareness of key historical figures, developing deductive reasoning skills, developing research skills, and promoting writing skills via Web-based communication. Links to Web-based projects in the following categories are listed: school to school projects; university mediated projects; private agency mediated school to Web site projects; government agency sponsored school to Web site projects; and university-school projects. (Contains 14 references.) (Author/MES)

LEARNING COMMUNITIES ON THE WEB

Learning Communities on the Web: A Teacher Education Project

Gregory R. MacKinnon and Elizabeth Tumblin

Acadia University

Wolfville, Nova Scotia, Canada

gregory.mackinnon@acadiau.ca

Abstract

The internet has many educational applications. This paper categorises the learning communities that have emerged as educators extend the capabilities of the internet beyond simple search capacities. A particular example of a teacher education project entitled "Mystery Web" is introduced as a model for building intern and student relationships as well as a variety of generic educational skills.

Learning Communities on the Web: A Teacher Education Project

The potential of web-based public school projects is enormous. Many of these projects demonstrate the benefits of rapid and facile communication between schools and individual classrooms. Inherent in this is the unique perspective that children around the world can add to such projects as they interact with one another in a whole host of web page settings on a wide variety of topics. This article is intended to provide a brief overview of the many styles of web-based projects that teachers are experimenting with. In addition the author offers a unique model for engaging students, in a relevant way, in the study of prominent regional figures in history and science.

An Overview of General Applications

Over the past decade there has been a plethora of literature on the applications of the internet to the classroom setting. Heide & Stilborne (1996) have posed some categories of use: projects, professional development, communications, publishing, classroom support, learning exploration, student research and personal interest.

Of the many cross-curricular applications, searching exercises such as Webquests (Norton & Wiburg, 1998) and Scavenger hunts (Sharp, 1999) have been popular. The internet has enhanced global communication and as such has had positive educational impacts. Within subject areas Wresch (1997) lists four benefits of internet use for science and math education namely 1) access to real data, 2) access to professional journals, 3) access to experts, and 4) opportunities to do real science. In the social sciences this can be extended to communications 1) people to people, 2) students to experts, 3) students to world resources, 4) students to national resources, 5) students to current events, and 6) students to historical resources. Meanwhile in the humanities a

whole host of writing projects have been explored (Erwin, 1992; Graves, 1995; Noden, 1995; Pinney, 1992) that span school districts and global communities.

Forming Communities

One of the exciting educational prospects of internet capability is the opportunity for virtual communities (Rheingold, 1993) where social groups form webs of relationships in cyberspace. Establishing internet communities is not a trivial task. Royer (1997) has outlined a stepwise approach for setting up collaborative projects on the internet namely to 1) prepare objectives, 2) post project objectives and requirements, 3) instruct and monitor interactions, 4) publish the project, and 5) evaluate the project. These projects can take many forms in the social realm. Table 1 provides examples of inter-school web projects. In some instances universities are initiating and mediating projects (Table 2). Other approaches have been adopted that utilize an existing privately sponsored network page (e.g. CCCnet) as a central office from which to engage a wide variety of activities (Roblyer, 1997) (Table 3). Some government (Table 4) agencies have taken the initiative to sponsor pages to facilitate educational exchange. Universities departments with a particular interest in public school education have also initiated projects (Table 5).

A Web Project for Teaching Teacher Interns and Building Community With The Public Schools

The project outlined below was initiated as an assignment in a teacher education course. Each student was given a personality of importance in the Canadian culture. The historical content examined was chosen in order to situate the learning. (The model is generic in its application to regional figures of any local culture.) These personalities

were either historical figures or more specifically notable scientists in Canadian history. The teacher interns task was to use sound design pedagogy (Fenrich, 1997) to create a web page that posed ten clues as to the identity of the famous personality (Figure 1). In preparing their page, among other requirements they were to include: sound, images, animated gifs, and a return email address so that public school students could contact them. Software used included Netscape Composer, HTML Assistant Pro 97, Microsoft Frontpage, Microsoft Gif Animator, and Corel Photopaint. Students had the option of using other applications on the approval of the instructor.

Individual intern work was then linked through an organizing page (Figure 2) that was in turn linked to a web site that introduced the challenge (Figure 1) (http://plato.acadiau.ca/courses/educ/gmackinnon/educ4503/mhomepage.html). History and science teachers were then cued to the page through listservs and personal e-mail. Their student's challenge was to identify all of the personalities through consideration of the clues and exchange with the teacher intern. Examples of intern pages are shown in Figures 3 and 4.

Activity objectives for the public school students included: promoting an awareness of key figures in our history, developing deductive reasoning skills, developing research skills, and promoting writing skills via web-based communication. Because learning to design an internet site was situated within an interesting context, teacher interns were highly motivated to complete the task. Not only did they expand their technical capacity, they learned some interesting history along the way. Perhaps the most fruitful aspect of this project was the interaction between interns and public school students. The interns found the students to be both interested and fluent in their use of

email technology. Interns learned how to field queries and pose thinking questions to students. In future projects interns felt we should capitalize on this mode of interaction and attempt to use the internet in a "mindtool" capacity (Jonassen, Peck & Wilson, 1999, p. 151).

Opportunities

The internet has been in place for long enough that the so-called "techno-romantic" (Beynon and Mackay, 1989, p. 246) period is coming to an end. Educators are looking for unique approaches that maximize the facile communication network of the world wide web. Communities of learners are able to share ideas in ways that were never possible before. Students who may never experience the excitement and education of world travel have been afforded an opportunity to explore foreign cultures in multimedia modes that far exceed picture book interactions of the past. The creation of rich learning exchanges and novel cybercommunities is only limited by the imagination of educators. What an exciting challenge for the millenium.

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Table 1

School to School Projects

Title	Origin	Site	Details
You Decide	Sao Paulo, Brazil	http://sao-smr.yazigi.com.br/decide1.htm	ESL
My Country, Your Country	Belmont SHS, Belmont, WA, Australia	http://www.bshs.wa.edu.au/partner/proj/country/cover.htm	International Cultural Exchange
ESL Class Newsletter Exchange Project	Nagoya, Japan	http://www.educa.nagoya-u.ac.jp/huzoku/index-e.html	ESL
El Nino and La Nina: Are They Changing our Climate?	Wickham Market CP School, Ipswich, Suffold, UK	http://Community.labs.bt.com/public/WickhamMarketPublic/world_map.html	Weather Studies
International Kitchen	Mankkaan Koulu, Espoo, Finland	http://ww.mankkaaya.fi//projects/kitchen/index.html	Food Culture
Cyber English	New York	http://mbhs.bergtraum.k12.ny.us/cybereng/	English Acquisition

Table 2

University Mediated Projects

Title	Origin	Site	Details
Internet Math Hunt	Swarthmore College. Swarthmore, PA	http://forum.swarthmore.edu/hunt	Math and Expert Questions
Painting the Planet	Abess Center for Environmental Studies, Miami Florida	http://www.araratcc.vic.edu.au/users/jot/painting/	Art and Poetry Writing
WISE Project		http://wise.berkeley.edu	Science Curriculum
Wolf Web Learning Circle		http://www.yesnet.yk.ca/schoolsf.html	Wolf Studies
CyberFair	Mankato Area Schools	http://www.isd77.k12.mn.us/resources/cf/	Virtual Science Fair
Kids for Kanata	Faculty of Education, York University, Ontario	http://www.edu.yorku.ca/kfk	Culture Exchange
World School - Antarctica	Colorado State University	http://www.etc.colstate.edu/jchristy	Following an Explorer
Global Water Sampling Project		http://k12science.stevens-tech.edu/curriculum/waterproj/index.html	Water Studies
WIER (Writers in Electronic Residence)	York University, Ontario	http://www.edu.yorku.ca/WIERhome/	Author Link

Table 3

School to Website Projects Private Agency Mediated

Title	Origin	Site	Details
North American Quilt: A Living Geography Internet Project	Saint Paul, Minnesota	http://www.onlineclass.com/NAQ/NAQHome.html	Geography
I*EARN: Folk Tales From Around the World	Novosibirsk, Russia	http://www.nsc.ru/folk	Folktales
Global Schoolhouse		http://www.globalschoolhouse.org/site/visitors.html	Global Projects
Kidwriter	Kent Learning Center, Seattle, Washington	http://www.kidlink.org/KIDPROJ/kidwriter	Writing Project
Encyclopedia of Animals: Written by Kids for Kids	Greensboro, North Carolina	http://www.CyberSchools.NET/encyclopedia/index.htm	Animal Stats
Time Capsule 2000	Industry Canada, Ottawa	http://www.schoolnet.ca/cpsule2000	Time Capsule Data
Odyssey of the Mind Program	Glassboro, New Jersey	http://www.odyssey.org	Team-based problem solving
Volcanoes: World Under Construction		http://www.kidlink.org/KIDPROJ/volcano	Volcano Watch

Table 4

School to Website Projects Government Agency Sponsored

Title	Origin	Site	Details
Canadian Community Atlas Project	Natural Resources Canada	http://cgdi.gc.ca/ccatlas	Internet Atlas
Grassroots Projects	Industry Canada	http://www.schoolnet.ca/grassroots/e/index.html	Cross-cultural
Canadian Heritage Interactive Journey	Burnaby, British Columbia	http://www.chij.com/	Following Explorers
NASA's Quest Project	Ames Research Center, California	http://quest.arc.nasa.gov/interactive	NASA Projects
Voices of Youth	UNICEF	http://www.unicef.org/voy/	World Issues
Kidspace	Canadian Space Agency, Montreal, Quebec	http://www.space.gc.ca/kidspace/index.html	Space Studies

Table 5

University–School Projects

Title	Origin	Site	Details
WebCSILE/ Knowledge Forum	Ontario Institute for Studies in Education, Toronto, Ontario	http://webforum.oise.utoronto.ca/webcsile	Building Databases
Mysteries from History Project	University of Indiana, Bloominton, Indiana	http://www.siec.k12.in.us/pccs	Mystery
Math Magic	El Paso, Texas	http://forum.swarthmore.edu/mathmagic/index.html	Class Challenges
Global Lab	Cambridge, Mass, USA	http://globallab.terc.edu/home.html	School Information
Intercultural E-mail Classroom Connections	St. Olaf College, Northfield, Minnesota	http://www.iecc.org	Youth Projects
Travel Buddies	Queensland University of Technology: Faculty of Education	http://rite.ed.qut.edu.au/oz-teachernet/projects/travel-buddies/	Culture Exchange

Figure 1. Introduction Page

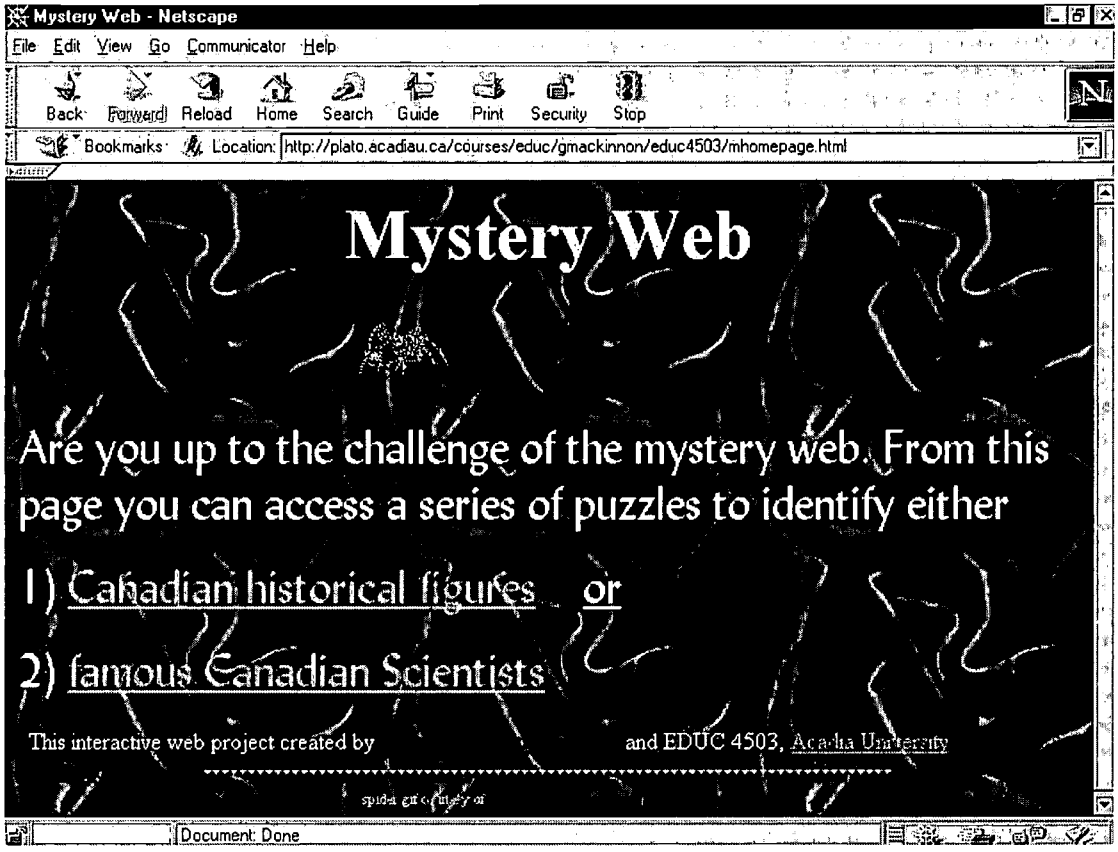

Figure 2. A List of Mystery Personalities

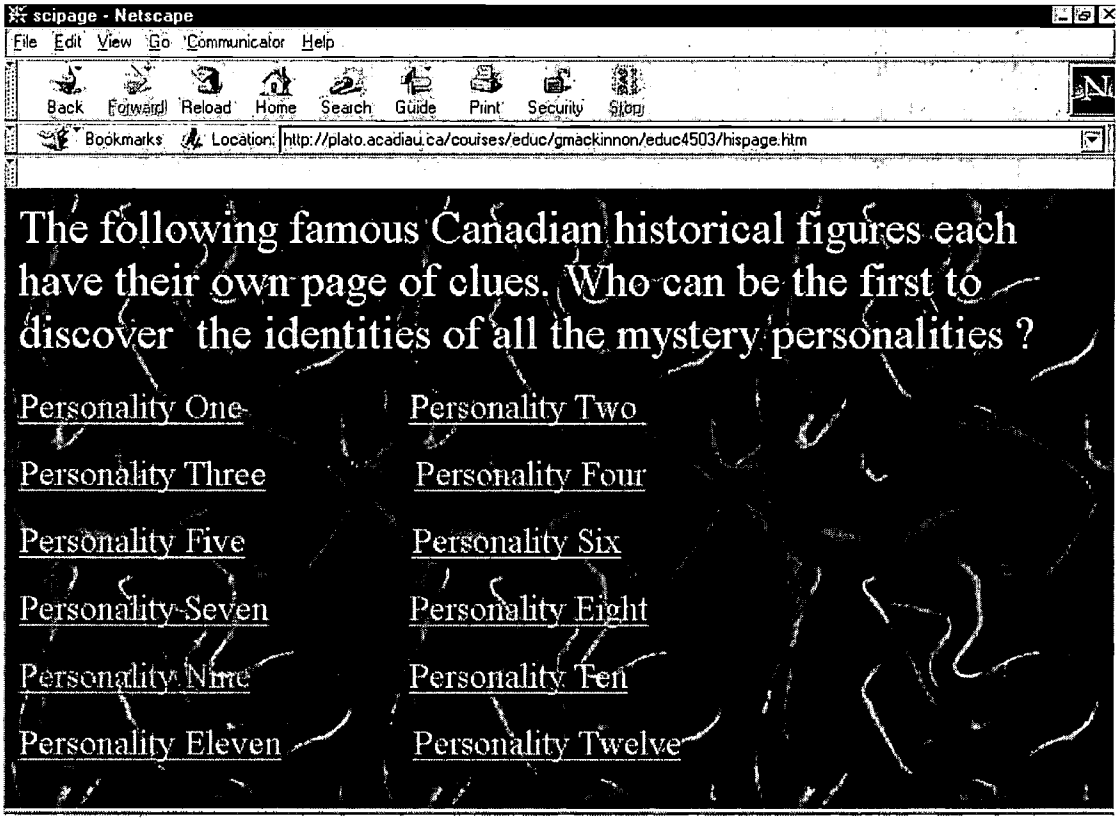

Figure 3. An Intern Page

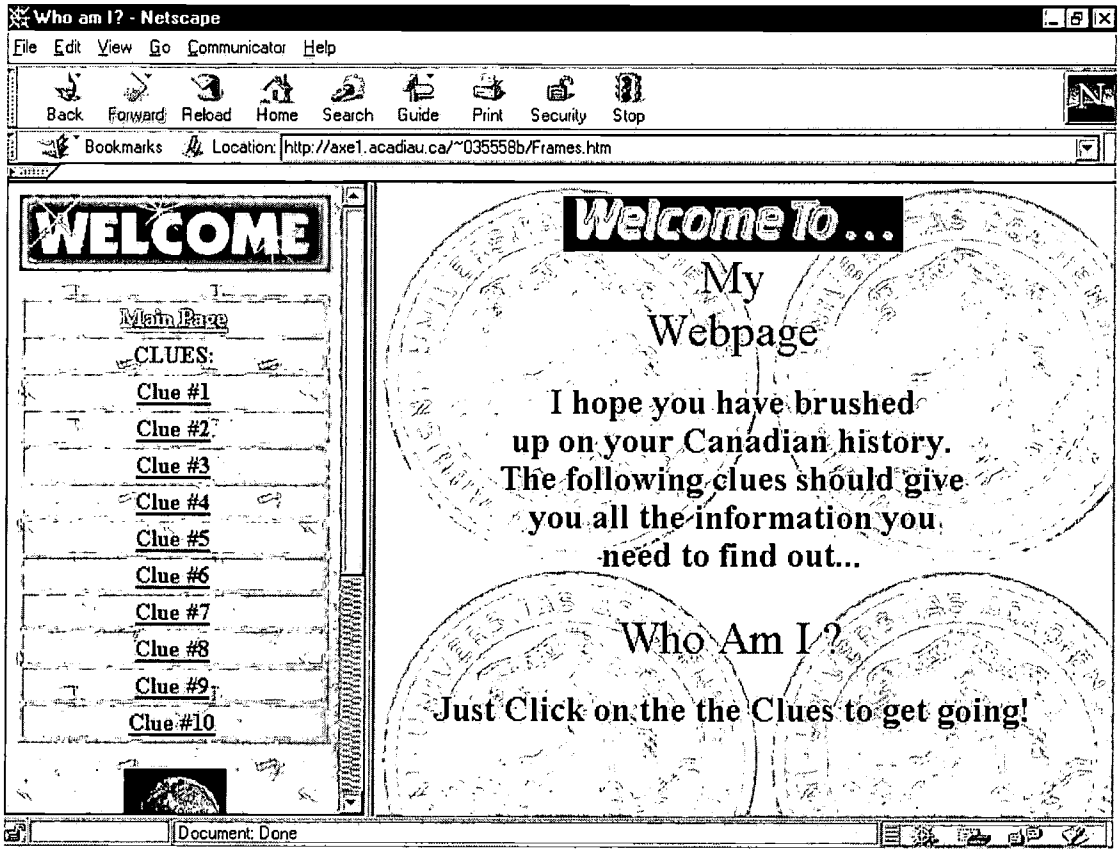

Figure 4. An Intern Page

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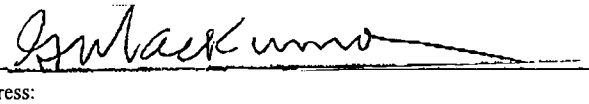
Signature: 	Printed Name/Position/Title: Gregory R. MacKinnon
Organization/Address: School of Education Acadia University Wolfville, Nova Scotia Canada B0P 1X0	Telephone: 902 585 1186 FAX: 902 585 1071 E-mail Address: gregory.mackinnon@acadiau.ca Date: Feb 17, 2002

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